

ABSTRACT OF THE DISCLOSURE 10/020 961

Phosphorus is implanted into a crystalline semiconductor film by an ion dope method. However, a concentration of phosphorus required for gettering is $1 \times 10^{20}/\text{cm}^3$ or higher which hinders recrystallization by later anneal, and thus this becomes a problem. Also, when
5 phosphorus is added at a high concentration, processing time required for doping is increased and throughput in a doping step is reduced, and thus this becomes a problem. The present invention is characterized in that impurity regions to which an element belonging to the group 18 of the periodic table is added are formed in a semiconductor film having a crystalline structure and gettering for segregating in the impurity regions a metal element contained in the
10 semiconductor film is performed by heat treatment. Also, a one conductivity type impurity may be contained in the impurity regions.

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